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BOTSWANA CONFEDERATION OF COMMERCE AND INDUSTRY

TRAINING DEPARTMENT

REPORT ON EVALUATION OF TRAINING IMPACT

SEPTEMBER 1995

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International**

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INTRODUCTION

1. BACKGROUND

The Botswana Confederation of Commerce Industry and Manpower (BOCCIM) provide training in a range of business areas.

They are involved in training from three different aspects. Firstly, they organise training themselves and train under their own name. Courses run under this programme are effective management, retail selling skills, marketing awareness, supervisory skills and customer relations.

The second area in which BOCCIM are involved is in putting out to tender a series of training courses they do not have internal expertise to run. These are bid for by various training organisations invited by BOCCIM to tender. Courses under this programme are labour relations, responding to tenders, the small business development programme, how to conduct market research, employee record-keeping, basic financial management, improve your business results, intermediate financial management, production planning and control, consulting procedures, credit control, and how to become an entrepreneur.

The third area of involvement is in the holding of specialist seminars such as the secretarial convention, the national business convention, and the industrial court seminar. These are of short duration, with large numbers of delegates, normally centred around a particular topic.

ALthough not strictly a training function, BOCCIM have also assisted members through a scholarship bursary scheme where they have sponsored people on relatively long-term courses that can be undertaken in Botswana or neighbouring territories. This assistance is obviously centred around the availability of funds for sponsorship.

BOCCIM, in both their own training and those courses put out to tender, use various types of training venue, dependent on the geographical location of the centre holding the course. In the main, however, training is done at hotels and training institutes.

The cost of courses varies, depending on whether the participant comes from a BOCCIM member company or not. Members pay P450 for a three-day course while non-members pay P600.

The courses are advertised by brochure (see examples in Appendix Five). About three weeks from the projected course dates, advertisements to publicise the course are placed in the local press.

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2. REASONS FOR UNDERTAKING THE INVESTIGATION

Indicative terms of reference for the investigation were provided by BOCCIM, in a tender document illustrating the approach to such an investigation.

These indicated an intention to measure the impact of BOCCIM training courses on the efficiency, effectiveness and profitability of the businesses who sponsor participants to the training courses.

BOCCIM training courses have been funded by USAID through the Botswana Private Enterprise Development Project (BPED), which has the goal of providing technical assistance to private enterprise in Botswana.

The funding agency is keen to obtain quantifiable data for the following priority reasons :-

1. Lessons for BOCCIM (about which courses, which businesses and which participants to focus on, how to design the courses, how to ensure management reinforcement).
2. Lessons for other trainers in Botswana.
3. Some impact data for USAID's annual assessments.

3. OBJECTIVES

The Overall Objective of this Training Impact Evaluation is specified in the tender document as being : "To strengthen the capacity of BOCCIM to manage training programmes and counselling activities that promote business development."

Within this context, the Specific Objectives of the investigation described in this report are to establish:-

*   What has been the impact of the training courses?
*   How can the impact of future courses be enhanced?

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INVESTIGATION

1.   METHODOLOGY

A Typology of Training Evaluation is presented in Appendix One.   Given the requirements in the tender document, the appropriate types of evaluation are levels 4 and 5, i.e. -

*   Assessment of Change in Behaviour back at Work (in this case, increases in efficiency and effectiveness as result of training), and
*   Assessment of Effects of Behaviour Change
        (in this case, contribution to profitability as result of training).

To carry out this assessment, the investigation was designed using standard research methodology, i.e. research questions were formulated, assumptions were stated, significant words were defined in operational terms, sources of data were described and data-collection instruments were chosen. The Evaluation Design is fully described in Appendix Two.

2.   INVESTIGATION PROCESS

It was decided that the basis of the investigation should be through the use of detailed questionnaires that would be addressed to the individual trainee, his or her immediate supervisor and a member of the senior management of the firm who had knowledge of the training and the trainee.

A Course Participants' Questionnaire and a two-part Interview Schedule for Supervisors/Managers were designed to check the hypotheses about the impact on efficiency, effectiveness and profitability.

It was decided by the consultants, in discussion with Ms A Richwine and Mr B McConnell who have been closely involved in the training programme, to approach the collection of data from three distinct approaches.

o   400 copies of the Course Participants' Questionnaire, with an explanatory covering letter and backed by a final instruction sheet, accompanied by a stamped self-addressed envelope to facilitate return, were sent by post to a sample of those drawn from the trainees listed on 1994/95 BOCCIM training lists. This instrument appears as Appendix 3.1.

o   In addition, two enumerators were chosen to each interview 100 individual trainees at their workplaces. The allocation, from the 1994/95 lists, was identified by BOCCIM training manager Mrs O C Masire. The instrument used appears as Appendix 3.2.

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These 600 course participants comprised a non-random sample of all 1994/95 participants who had undergone training up to the time of the survey, selected by BOCCIM on the basis of local knowledge about probable return. Statistically, one cannot confidently generalise from a non-random sample to the wider population. However, in the absence of other information, we consider the results indicative of all trainees on BOCCIM-sponsored courses.

o   The companies where interviews with the trainee, supervisor and manager were conducted were selected on the basis of approximately every 20th company on the 1994/95 lists, with adjustment where duplication occurred. The geographical range of places to visit was based on the practicality of visiting centres outside Gaborone. Centres outside Gaborone that were visited were Francistown, Maun, Serowe and Palapaye. This gave a target of fifty companies to be approached. The Interview Schedule appears as Appendix 3.3. The first part of the schedule posed questions about participants' efficiency and effectiveness to those in immediate supervisory positions.. The second part of the interview was directed at management representatives who were in a position to comment on profitability. In a number of interviews, these were one and the same person.

Problems were experienced in respect of both the postal questionnaires and the individual face-to-face interviews. Of the 400 postal questionnaires, we received a response from only 20 of the trainees. The general position in Botswana is that the response to postal questionnaires is not good. It was for this reason that we used enumerators. The enumerators were not able to complete the full 200 interviews with trainees, due to time constraints and the unreliability of trainees. Problems encountered were that trainees were not present at the time and date they had agreed to meet the enumerators and, on other occasions, where present, they indicated that they could not complete the questionnaires immediately but would forward them in due course, which they did not do.

With regard to the company interviews where a trainee, supervisor and manager were targeted, a number of problems arose which led to only 32 interview schedules being fully completed. These problems were not dissimilar to those encountered by enumerators. Appointments were made but upon the interviewer arriving at the company, one or more of the persons to be seen were not present. On occasions, people indicated that they were too busy to spare the time, or that the structure or staffing of the company had changed so significantly that no meaningful comments could be made in respect of the issues raised.

The information collected from the 171 course participants and 32 companies is presented in 38 Tables in Appendix Four. The information is described in narrative form in Part III of this Report, and is discussed in Part IV.

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FINDINGS

1.   INTRODUCTION

A total of 171 Course Participants' Questionnaires were obtained for analysis, a 29% response rate (Table 1, Appendix Four).

> Note : In this report, we have followed the convention in all cases of rounding percentages up to the nearest whole figure.
>
> We consider that using decimal points in a survey of this nature can convey an unintentionally misleading impression of great precision.

32 copies of the Interview Schedule were completed for analysis, comprising 9% of the population of organisations sending participants for training in 1994/95 (Table 2, Appendix Four).

Results of the surveys appear in Tables 3 to 38 in Appendix 4. The data collected by these instruments enable us to check our Assumptions and then to answer the two Research Questions about the Impact of Training.

Questions and Assumptions are set out in sections A & B of Appendix Two : Evaluation Design.

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2. GAIN IN KNOWLEDGE ACQUIRED BY PARTICIPANTS AS A RESULT OF ATTENDING COURSES IN 1994/95

The purpose of this assumption [B.1.a(i-ii)] was to focus on and try to establish in principle whether the sample could be designed to screen out those who had measurably gained little or nothing from courses, either because of inappropriate course design or poor delivery of training. There would be little apparent point in following up those participants whom it could be reliably established had learned little or nothing, to find out what they had applied, since logically they would have gained little or nothing to apply. (There might of course be other reasons to follow-up such category).

In the event, it was not possible to screen out such participants, since GAIN in knowledge and skill was not generally measured at the end of short courses.

In our original proposal of June 1995, we envisaged a Behavioural Test and Observation of a non-random sample of 1995 courses, to establish possible norms for knowledge/skill gain and to check the feasibility of such screening. In view of the circumstances, it was decided instead to rely on a screening question in the Participants' Questionnaire (question 2 in Appendices 3.1 & 3.2).

Question 2 asked : Please list two useful things you learned on (your) course". The intent of this question was to require participants to focus on specific examples of new learning. Results appear in Table 3 in Appendix Four, showing that 82% of the respondents listed two learning points, 13% listed one, and 5% left the question blank. From this we conclude that a significant percentage of participants consider they gained relevant knowledge and skill.

Examples of things participants stated they had learned :-

*   Handling grievances from employees.
*   How to deal with difficult people.
*   How to budget, do a cash flow.
*   Ten commandments of good business.
*   How to write a final report.
*   The rights of an employee in his job.
*   Prepare and present a marketing plan.
*   Deportment; skilful writing.
*   Formulating of plans; controlling my section.
*   Cash transactions; credit transactions.
*   How to welcome a guest in the hotel.
*   Difference of sales books and batch books.
*   How to use the computer; how to write business letters.
*   How to identify problem accounts; collection techniques.
*   I learned how to reconcile the cashbook and Trading Profit and Loss Statements.
*   How to survey the market; how to convince customers.
*   Coping with crisis and effective time management.
*   Planning my work.
*   Industrial Act; company policy.
*   News presentation; newsroom management.

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3. TRANSFER OF KNOWLEDGE INTO THE WORKPLACE, AND REASONS FOR ANY LACK OF TRANSFER

Question 3, checking assumption B.1.b(i-ii), asked : "Have you been able to use your new knowledge at work since the course?" Results appear in Table 4 in Appendix Four, showing that 80% of the respondents stated they had transferred their knowledge into their work, and 20% said they had not.

From this, we conclude that a significant percentage of participants considered they had transferred their gains from their courses to their work.

Herewith some examples from those who had transferred their gains, stating the gains helped as follows:-

* I am a short-tempered person, thus the course taught me to be patient and understanding towards the clients.
* Has helped me to improve service.
* I managed to know more about our market and we got more individual customers.
* Setting up a good register, well-labelled, controlling my sales and my receipts, such that I was able to give an easy-to-follow report.
* I got a better job from a different company, doing what I learned at the course.
* Helped me to introduce computers to management.
* Records are updated now.
* I am now able to tell my boss what a correspondence is all about.
* How to treat latecomers and absenteeism.
* I have been given more tasks to handle on my own.
* Most of those I work with are more hygienic and keep the required standard of safety in workplaces.

* I can now know cash flow problems of my company.
* It helped me to control the staff and time of the customer.
* To keep the records orderly.
* In dealing with other people in my working place, especially managers.
* When customers enter my office, I always make sure that I leave my work and pay attention to what they say.
* I was able to show my subordinates that their role is important to company future and productivity.
* I was able to use overhead transparencies and flipcharts to make my training more meaningful.
* My conduct towards customers has improved
* It helped improve my skills in the production of adverts and our quarterly newsletter. Good comments have been heard about the newsletter.
* A better understanding of the bank's reports and interpretation.
* I identified areas where I waste time and since then I use time well.
* My work output has increased.
* Through investigation of the environment, I was able to identify services that are not offered.

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The respondents who did not transfer their gains in knowledge into their workplaces gave 36 reasons for not doing so, summarised in Table 5 in Appendix Four.

> Note : In this report, where numbers involved are small (i.e. well below 100), the use of percentages can unrealistically magnify minor differences. Where appropriate, therefore, we have followed the convention of reporting the numbers of respondents.

Briefly, 12 of the 13 respondents who gave details stated the training was not adequate, as follows :-

* I feel that the training approach was lacking as I am unable to apply what I learned (Training Management).
* Training too short (Public Relations, Computer Maintenance 1, Labour Relations, Market Research).
* Too short and not enough practice - very little was challenging, the level should be raised to advanced (Advanced Finance).
* Panellists were expressing their opinions rather than telling us the facts (Industrial Courts).
* Time given for the study was shorter than recommended and as a result some subjects need to be re-taken (ABE).
* Wrongly focused as not orientated to construction and needs to be more specialised (Tenders).
* Course was jumbled up and confused, looked like communication problems between BOCCIM and resource person (Record-keeping in Personnel).
* The lecturer did not give us enough practice in how to treat unpresented cheques when doing the cashbook reconciliation - he mainly concentrated on accounts for small businesses (ACCPAC).
* Not enough practice (AutoCad).

A further 4 respondents stated their supervisors or co-workers were opposed to the new idea, as follows:-

* The people we work with are too sympathetic to customers (Credit Control).

The following 3 comments were all from Customer Relations - Tourism courses :

* Supervisors/co-workers don't seem to know what the course was all about and I guess I am just here to do a job - as long as it is done, no-one cares whether it's done correctly or not. Not efficient in my daily work because co-workers do not co-operate, also attitude is not well-appreciated -- more confident and seem to know everything - they seem threatened because they are not professional, also not trained for the job - not much skill for customer relations. Management/supervisor not interested to make us peform what we have learned - trainees not given chance to perform supervisory stage or not given responsibilities

5 respondents stated the training was not relevant to their jobs.

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14 respondents gave various reasons for not transferring gains in knowledge, as follows:-

* Only after I complete the examinations will I be able to use the qualification (CIMA 3).
* I have not yet completed (CIS).
* Level of responsibility is too low for the qualification (Management Accountancy).
* Still learning (Intermediate Financial Management).
* I don't have the opportunity (Basic Finance).
* I was taught things I was already doing (Credit Control).
* Our computer is out of use (Bookkeeping).
* My employer did not provide me with a computer - I always have to prepare the work and my supervisor has to input it in his computer (ACCPAC).
* I have not yet completed the course (Diploma in Computer Studies).
* Not yet started to use the computer (AutoCad).
* Just completed course (Marketing Management).
* Transferred to a different department (Advanced Diploma in Trainer Development).
* Not called for yet (Tenders - 3 comments).
* Storing knowledge for future use (Market Research).

In concrete operational terms, we consider comments on the inadequacy of training indicate possible design and delivery faults. Comments on opposition within the organisation, and lack of relevance to the participants' jobs indicate organisational constraints.

We shall consider the significance of these points in Part V of the Report.

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4. IMPACT OF THE TRANSFER OF KNOWLEDGE GAINED ON EFFICIENCY, AND REASONS FOR ANY LACK OF IMPACT

Question 4, checking assumption B.1.c(i-ii), asked : "... have you become more efficient in your daily work?" Results appear in Table 6 in Appendix Four, showing that of the 136 respondents who had transferrred their new knowledge into the workplace, 88% stated they had become more efficient and 12% said they had not.

From this, we conclude that a significant percentage of participants used their new knowledge to work more efficiently.

Some specific examples of increased efficiency back at work, as reported by trainees :-

* Cut-and-paste now done on computer.
* Type my own work.
* Work faster, more accurate.
* Can confidently check accuracy of accounts.
* Can keep books - cashbook, creditors, debtors.
* Up-to-date with labour laws.
* I perform more duties per day.
* We budget, we have cash flows, right number of staff.
* Errors that used to take me a long time to find I can now detect quickly.
* Meet deadlines.
* Better hygiene and food safety.
* At the moment, I'm a star. Most people depend on me, as I know the computer.
* I am able to explain problems to subordinates simply.
* I make people be punctual at their work.
* I am able to delegate work, and supervise my juniors.
* Every morning I clear my boss's out-tray and sort out urgent things first.
* I used to misplace invoices from our suppliers but now everything is running smoothly.
* I can locate information on employees faster.
* I have been able to plan my work in advance.
* I am working faster so that the customer can come back.
* Always busy.
* I have been able to save the company unnecessary expenses as management was not aware of demand and supply ratios - we over-produced items with a short shelf life.
* There is improvement in the status of our garage.
* Call meetings every week to discuss things of importance.
* Saved money because company did not have to employ a consultant to do a survey for us.
* Communication between me and my bosses and our customers has improved a lot.
* I don't wait for the manager to solve any problem for me, and I don't give discount to anybody who is not entitled.
* I spend less time preparing trial balances and posting.
* Enjoying my job and dealing better with people.
* Have learned to project my cash flows a little bit.

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Details of the 16 respondents who stated their transfer of knowledge into their workplaces did not result in more efficiency appear in Table 7 in Appendix Four.

Briefly, 4 respondents stated further efficiency was not possible.

2 respondents stated their supervisors/co-workers were opposed.

2 respondents gave no reasons, and 8 gave the following reasons why the new knowledge they applied to their work had no impact on efficiency :-

* Had to change jobs after the training (2 people).
* Expanding and need more staff.
* Need more equipment.
* Course had nothing to do with speed or efficiency.
* Use what I was taught infrequently.
* Have just come back to work.
* Course not applicable to present situation.

The relevant assumption [B.1.c(ii)] reads :

"Where (participants) have not (been working more efficiently), this is because they were insufficiently motivated by the training to apply what they learned, or they developed insufficient skill to counter organisational constraints."

In concrete operational terms, we consider claiming that improvement is not possible indicates a lack of motivation, and reporting opposition within the organisation indicates lack of skill to counter organisational restraints.

We shall return to these points in Part V of the Report.

Further information about the impact of training on efficiency was obtained in the interviews of Supervisors/ Managers of those who had attended courses in 1994/95. Results appear in Table 8 in Appendix Four, showing that of the 32 respondents, 75% considered the employees concerned were overall more efficient. Specifically, 63% stated employees worked faster after training, 34% said employees had suggested ways to save the organisation money, 28% said generally employees used work resources more economically, and one employer said the employee had suggested ways to reduce the use of raw materials.

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5. IMPACT OF THE TRANSFER OF KNOWLEDGE GAINED ON EFFECTIVENESS, AND REASONS FOR ANY LACK OF IMPACT

Question 5 of the course participants'questionnaire, checking assumption B.1.d(i-ii) asked : "... have you become more effective in your work?" Results appear in Table 9 in Appendix Four. Note that although many of those who stated they had become more efficient also stated they had become more effective, this was not the case throughout, and the fact that 136 claimed more efficiency and 136 claimed more effectiveness is coincidental. Table 9 shows that of the 136 respondents who answered the question on increased effectiveness, 84% stated they had become more effective and 16% said they had not.

From this, we conclude that a significant percentage of participants used their new knowledge to work more effectively.

Some specific examples of increased effectiveness, given by trainees :-

* We have been getting more jobs lately.
* I market our products in the newspaper and more orders we get.
* On debt collection, I have been more effective.
* Staff members more aware of time and money.
* I came up with ideas on how we could improve and design forms, eg. leave forms and loan forms.
* Cost reduction; timeous financial reporting.
* The adverts made here are attracting more customers.
* Able to pass more work to junior staff, increasing their confidence whilst spending more time myself on the important items.
* Prepare tenders, memos, quotations etc very quickly and as a result we win more orders.
* Been able to minimise amenity costs.
* Company has more sales through more products pushed to the warehouse.
* I have learned how to appease a disgruntled customer and they always come back.
* Better financial control
* I don't waste time on personal telephone calls; staying late to finish up deadlines.
* Better customer relations improved or at least stable sales, after a threat of a decline.
* We deal with co-operative groups in rural villages and I have been able to get more sales and customers to them.
* I have been able to motivate my subordinates by being a good listener and responding quicker.
* Actually, I have releived my boss from doing all the invoices and orders.
* I have been able to win a few tenders since the course.
* I can see our customers come back and they enjoy our meals because we give them better service in our hotel.
* More consumers and most are interested in getting help from me.

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Details of the respondents who stated their transfer of knowledge into their workplaces did not result in more effectiveness appear in Table 10 in Appendix Four.

Briefly, 6 respondents stated further effectiveness was not possible.

1 respondent stated the supervisor/co-workers were opposed.

10 respondents gave no reasons, and 5 gave the following reasons why what they applied to their work had no impact on effectiveness:-

* Until a problem arises, I can't say if I am more effective.
* Huge costs of expanding, pending, rendering one incapable.
* Seminar same each year.
* I only provide backup, no exposure to sales, customers etc.
* Not applicable to me.

The same assumption [B.1.d(ii)] was made here as for efficiency — insufficient motivation and insufficient skill to counter organisational constraints —and we shall consider these points in Part V of the Report.

Further information about the impact of training on effectiveness was obtained from Supervisors/Managers. Results appear in Table 11 in Appendix Four. Ten indicators of effectiveness were contained in question 9 of the interview schedule. Obviously, some of the indicators are specific to certain courses, such as computers or tenders.

Of the 32 respondents, 13 said employees displayed a better attitude to customers after the course, 11 said employees made fewer errors with computers, 8 said there were fewer interpersonal staff problems, 6 said there were fewer errors in books and accounts, 5 said employees obtained more sales orders, 3 said there was better financial control, 2 said employees produced better business letters, and 1 reported better success in responding to tenders after training.

All 32 respondents reported employees were generally more effective (at achieving the organisations' specific goals) as a result of the courses they attended.

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6.   IMPACT OF THE TRANSFER OF KNOWLEDGE GAINED ON PROFITABILITY, AND REASONS FOR ANY LACK OF IMPACT

We considered this could best be checked by asking senior officials of organisations, those likely to be aware of financial issues, about any impact on profitability.

Question 14 of the interview schedule stated: "(We recognise) it is difficult to state categorically that attendance at a course has or has not increased profitability. However, we would find it very valuable to get some indication from you about whether (name of employee) work since the course (which is more efficient/effective according to his {her} Supervisor) has contributed in any way to increased profitability?"

Results are shown in Table 12 in Appendix Four. Of the 32 respondents, 19 were not able to say whether the course impacted on profitability, 9 said No and 4 said Yes.

Relating a course (on, say, computers or customer relations or bookkeeping) to impact on profitability is obviously problematic, raising issues of tracking individual impact on company performance, and isolating and measuring the impact of people who may be in staff support positions rather than in sales or management.

The purpose of questions in the interview schedule was to seek informed opinions from senior officials, so that we could use the data to check assumption B.1.e(i-ii), and then to draw conclusions about assumption B.1.f. regarding return on investment. In the event, the results cannot be used to draw any conclusions about the impact of courses on profitability. Similarly, results are too indeterminate to check any relation between profitability and gender/education/business size, type or location/management's role.
We shall return to the vexed issue of contribution to profitability in Part V of the report, and make some suggestions.

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7. **DIFFERENCES IN KNOWLEDGE GAIN, TRANSFER, EFFICIENCY AND EFFECTIVENESS ACCORDING TO COURSE PARTICIPANTS' GENDER, EDUCATION, BUSINESS TYPE AND BUSINESS SIZE**

The illustrative task list in the tender document indicated many sub-categories of interest and the design of our evaluation set out to encompass a number of these. In this section, we report on the relationship, where discernible, between a number of the sub-categories.

Tables 13 to 16 summarise the distribution of respondents to the course participants' questionnaires by gender, education, business type and business size. Table 33 contains a distribution of interviews by 5 business locations, with 25 of the 32 interviews in Gaborone and 3 in Francistown, but there is insufficient differentiation to relate these to other factors.

(a) **GENDER DIFFERENCES**

Of the 171 respondents to the participants' questionnaire, 170 stated gender, 115 female (two-thirds of respondents) and 55 male (one-third).

Tables 17 to 20 describe gender differences, distributed according to the participants' knowledge gain, transfer of knowledge into the workplace, increased efficiency and increased effectiveness at work. In all cases, the differences are small, with a 5% difference on Efficiency, 3% on Effectiveness, 2% on Transfer and 1% on Knowledge Gained.

We conclude from this that gender difference is not a significant factor.

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(b) EDUCATION DIFFERENCES

Of the 171 respondents, 166 stated their highest educational level. These were categorised into four levels — below O-level, O & A level, post-secondary, and degree level.

Table 21 describes KNOWLEDGE GAINED, distributed according to participants' educational level.
All of those with less than O-level considered they had gained knowledge.
96% of those with O & A level, and with degrees, considered they had gained knowledge.
86% of those with a post-secondary qualification felt they had gained.
All are high percentages. Is the lower percentage in respect of those with post-secondary qualifications a significant difference? There is some common-sense support for this view, since it is likely that those with formal post-secondary vocational training would already have covered some of the material in the BOCCIM work-related courses, and it would be less novel to them than to those with only academic education.

Table 22 describes TRANSFER of knowledge gained into workplaces, distributed according to participants' education.
Only 64% of those with degrees considered they had been able to transfer what they learned.
76% of those with O & A level transferrred their learning.
83% with less than O-level transferred their learning.
92% of those with post-secondary qualifications considered they had transferred their new knowledge into workplaces.
Such large differences appear significant. We can hypothesise that those with post-secondary qualifications were already more attuned to the realities of the workplace. We shall return to the implications in Part V of the Report.

Table 23 describes increased EFFICIENCY, distributed according to participants'educational level.
There is little differentiation according to educational level, with 92% of those with secondary school education reporting increased efficiency, and 89% of those with post-secondary education (vocational or degree) reporting increased efficiency.

Table 24 describes increased EFFECTIVENESS, distributed according to participants' educational level.
92% of those below O-level reported increased effectiveness at work.
88% of those with O & A level reported increased effectiveness.
86% of those with degrees did likewise.
81% of those with post-secondary certificates and diplomas reported increased effectiveness. This figure might indicate a significant difference — again supported by common-sense in that this category, with its post-secondary vocational training, may already be more oriented to workplace results. However, the difference is not sufficiently large to be conclusive.

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(c)   DIFFERENCES BY BUSINESS TYPE

Of the 171 respondents, 163 stated the type of company they worked for -- here referred to as Business Type. These were categorised according to the list of 11 company categories appended to the Participants' Questionnaires. One alteration was made, with rail and air transport being included with road transportation, renamed Road & Other Transportation.

We consider that the numbers of respondents employed in 8 of the 11 categories are too small to permit meaningful conclusion. Details of these categories, and numbers of respondents in each, are as follows: Real Estate & Business Services (13), Finance (10), Road & Other Transportation (7), Electricity & Water Supply (6), Insurance (4), and 2 each in Agriculture, Mining & Quarrying and Construction.

Larger numbers of respondents came from the other three categories, with 65 respondents employed in Social & Personal Services, 29 in Wholesale & Retail, and 23 in Manufacturing.

Tables 25 to 28 describe the distribution in each of the 11 company categories, according to GAIN, TRANSFER, EFFICIENCY and EFFECTIVENESS.

Table 25 describes participants' KNOWLEDGE GAINED, distributed according to the type of business in which they are employed.
The lowest gain in knowledge reported was for Manufacturing, with 91% in that category, 95% of those in Social & Personal Services, and 97% of those in Wholesale & Retail reporting a gain in knowledge as a result of the courses. This meant that gains were not reported by 2/23, 3/65 and 1/29 respondents respectively. There is insufficient differentiation here to discern any significant differences.

Table 26 describes participants' TRANSFER of knowledge into workplaces, distributed according to business type.
The percentages here are based on rather larger figures, with 7 out of 29 respondents in Wholesale & Retail, 13 out of 65 in Social & Personal Services, and 4 out of 23 in Manufacturing reporting no transfer of knowledge gained from courses into the workplace. (This is the 20% of all respondents, described in Table 4, who stated they could not transfer anything from the course to the workplace).
The figures translate into 76% of Wholesale & Retail, 80% of Social & Personal Services, and 83% of Manufacturing respondents who stated they could transfer and apply what they had learned. The differences are not considered significant.

Table 27 describes increased EFFICIENCY, distributed according to business type.
The differences are not considered significant, with 90% of respondents in Wholesale & Retail and 91% of those in Manufacturing and in Social & Personal Services reporting increased efficiency.

Table 28 describes increased EFFECTIVENESS, distributed according to business type.
93% of those in Wholesale & Retail reported increased effectiveness.
88% of those in Social & Personal Services reported increased effectiveness.
78% (5 out of 23 respondents) in Manufacturing reported increased effectiveness. It is possible that an increase in effectiveness has to be more concretely observable in this sector, and that may account for the rather larger percentage of respondents who reported no increase in effectiveness.

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(d) DIFFERENCES BY BUSINESS SIZE

Of the 171 respondents, 158 indicated the size of the company they worked for -- here referred to as "Business Size".
Small companies are those employing under 25, medium employ 25 to 100, and large companies are those employing over 100.

Table 29 describes KNOWLEDGE GAINED, distributed by business size. There are no significant differences, with 95% of those in large companies, 97% of those in medium companies and 98% of those in small companies reporting gain in knowledge.

Table 30 describes TRANSFER of knowledge into workplaces, distributed by business size. It appears that those employed in small companies transferred their knowledge more easily, with 86% of those reporting transfer, 81% of those in medium companies and 77% of those in large companies. This would tend to be supported by the commonsense assumption that innovation is likely to be easier in smaller organisations.

Table 31 describes increased EFFICIENCY, by business size. There are no significant differences, with 90% of those in large companies, 91% of those in small companies and 94% of those in medium companies reporting increased efficiency.

Table 32 describes increased EFFECTIVENESS, by business size. There is an observable pattern that more respondents report increased effectiveness in small companies (93%) and medium companies (92%), and less in large companies (82%).

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8.   DIFFERENCES IN TRANSFER, EFFICIENCY AND EFFECTIVENESS, ACCORDING
      TO WHETHER TRAINING WAS REINFORCED WHEN COURSE PARTICIPANTS
      RETURNED TO WORK

Question 5(a) in the Course Participants' Questionnaire, checking assumption B.1.h.(i), asked whether the training was reinforced and if so how this was done after return to work.

63% of the respondents indicated there had been some reinforcement (Table 34).

The methods of reinforcement used are described in Table 35. For the 107 respondents who experienced some reinforcement, 62% stated managers discussed the course with them on their return to work, 56% stated that their co-workers asked them about the course, 48% were asked to brief others about what they had learned, 42% were asked to suggest more efficient and effective work methods, 38% said supervisors asked for their suggestions, 15% said trainers followed up, and 6% reported that in-company training reinforced their courses.

Tables 36 to 38 summarise the effect of reinforcement on whether knowledge was TRANSFERRED from the course to the workplace, and on whether such reinforced transfer resulted in increased EFFICIENCY or EFFECTIVENESS.

Table 36 reveals a significant difference in transfer of knowledge between those who recieved some reinforcement and those who did not. All of the 107 respondents who experienced reinforcement reported they had transferred what they learned into their work, while only 45% of those who received no reinforcement transferred.

Table 37 reveals a significant difference in whether efficiency increased where the course was reinforced by any means. 93% of those who received reinforcement reported increased efficiency, while only 69% of those who experienced no reinforcement increased their efficiency.

Table 38 reveals a significant difference in whether effectiveness increased where reinforcement occurred. 89% of those who were reinforced reported increased effectiveness, while only 66% of those who received no reinforcement increased effectiveness.

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Part IV

CONCLUSIONS

1. OVERVIEW

The various goals of this impact assessment are to be found in a number of documents -- in the tender document and the accompanying illustrative task list, in subsequent faxes from BPED, and in our proposal dated June 1995, which sought to summarise these in a format we could investigate.

That format is set out in the Evaluation Design in Appendix Two.

In this part of the report, we shall draw conclusions about assumptions set out in the Evaluation Design, and shall then answer the first research question :-

* What has been the impact of the training courses?

    Here we shall reflect on the extent to which BOCCIM-sponsored training courses have had an impact on the affected businesses. We envisage this will also serve the purpose of providing some impact data for USAID's annual assessments.

In the final part of the report, under Recommendations, we shall answer the second research question :-

* How can the impact of future courses be enhanced?

Here we shall draw out lessons for BOCCIM and other trainers in Botswana, and advise about strengthening their capacity to manage programmes that promote business development.

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2.   IMPACT OF COURSES ON PARTICIPANTS

95% of the sample reported gaining knowledge from the various courses. The examples they gave show the job-relevance of what they learned. 80% of the sample reported they were able to apply their knowledge to their work and again gave convincing examples of how this application helped them at work.

The information is indicative rather than conclusive, since it does not address the extent to which other material in courses may be irrelevant, for example. However, this is a strong indication that courses are having a useful impact on a significant majority of those who undergo BOCCIM-sponsored training.

3.   IMPACT OF COURSES ON ORGANISATIONS

88% of respondents reported increased efficiency and 84% reported increased effectiveness at work as a result of training. The dozens of specific supporting examples indicate these judgements are based on real experiences, and are not mere subjective wishful thinking. This indicates that training is having a significant improving impact on work processes in companies sending staff for training on BOCCIM-sponsored courses.

4.   IMPACT ON PROFITABILITY

Here we have no meaningful results to report. The anticipated difficulty of evaluating the individualised impact of training on any contribution to company profits turned out to be very real. A significant majority of company representatives stated categorically that it was not possible to say whether courses impacted on profitability.

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5. IMPACT OF VARIOUS FACTORS

The study did not establish any significance in the gender of participants, insofar as gain in knowledge, transfer of knowledge, increased efficiency or increased effectiveness are concerned.

Similarly, insofar as gain in knowledge and increased efficiency are concerned, no significance is attached to the small variations observed between respondents from businesses of different sizes.

Insofar as gain in knowledge, transfer of knowledge and increased efficiency are concerned, the same conclusion about no significance is drawn about the small variations observed between respondents from businesses of different types.

Finally, there is no significant difference insofar as increased efficiency is concerned about the small variations observed between respondents' educational levels.

However, larger differences do appear, and may be considered significant, in regard to respondents' :-

* educational levels and knowledge gained
* educational levels and knowledge transferred
* educational levels and increased effectiveness

* business type and increased effectiveness

* business size and transfer of knowledge
* business size and increased effectiveness.

The first conclusion to be drawn is that there is no evidence to support instituting separate training according to gender.

Notwithstanding the relation between business type (manufacturing) and increased effectiveness, we consider there is insufficient evidence to separate or stream participants according to type of business. Obviously, this refers to general courses and does not preclude courses being tailored to specific sectors.

However, there is some support for the idea of separating participants on courses according to whether they have post-secondary vocational qualifications or not. Those with academic education only (including degrees), reported more knowledge gained, although greater difficulty in transferring knowledge, and greater increase in effectiveness where transfer happened. This is probably because those only academically-educated start with a smaller stock of vocational knowledge and skill, not having experienced formal post-secondary vocational training. Streaming participants on the basis of post-secondary vocational qualifications would permit differences in content and instructional methods to be employed for the two categories of trainees on the same type of course.

There is also some support in the findings of this impact assessment for streaming course participants according to business size, and focusing on the different environments in small and large organisations, since those respondents from organisations employing under 25 people report easier transfer and greater effectiveness than do respondents from organisations employing 100 or more people.

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6. INFLUENCE OF REINFORCEMENT OF TRAINING

The findings reveal very clearly that where training is reinforced back at work it has a signficant impact on whether knowledge gained from courses is transferred into workplaces and, where it is, on whether efficiency and effectiveness signficantly increase.

It appears conclusive that where reinforcement occurs, the interest shown by management and co-workers optimises the impact of training.

We shall return to this point under Recommendations.

7. OVERALL ASSESSMENT OF IMPACT

The results of the impact assessment show that BOCCIM-sponsored training courses have signficantly enhanced the efficiency and effectiveness of the organisations from which trainees came and to which they return.

It was not possible to draw any conclusions about the impact of courses on enhancing profitability.

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Part V

<u>RECOMMENDATIONS</u>

Now we turn to the second research question :-

*   How can the impact of future courses be enhanced?

Our recommendations cover eight areas, where we shall suggest lessons for BOCCIM and other trainers, and advise about strengthening their capacity to manage programmes that promote business development in Botswana. These areas are :-

1.   Design of Courses

2.   Administration of Courses

3.   Marketing/Selling of Courses

4.   Streaming Course Participants

5.   Delivery of Training

6.   Management Reinforcement of Training

7.   Assessing Contribution to Profitability

8.   Feedback from Customers.

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1. DESIGN OF COURSES

Here we shall look at designing courses to provide for :-

* more specific focus on outcomes
* practice by trainees
* motivational statements
* tuition in coping with organisational constraints
* meaningful evaluation
* a log book system, and
* basing training on an analysis of performance deficiencies.

The impact of future courses can be enhanced by ensuring that all short courses in all existing subject areas explicitly promote the desired outcomes of improved efficiency, effectiveness and contribution to profitability. At present, it appears that courses are designed by subject matter specialists and as such are subject-driven rather than need-driven. This is the traditional approach to course design, where the training is in effect surrendered to specialists who may know their own subject but in the absence of a clear specification do not necessarily relate that subject to users' needs when they design and deliver a training course. When evaluators go into the workplace to assess, for example, contribution to profitability, they then discover that course participants were not taught how to so contribute, making assessment problematic.

> An analogy would be a field test of a new vehicle in rough terrain, when the various parties involved in design and manufacture were never given a clear specification of the intended conditions under which the vehicle was to operate — so the designer thought of aesthetic appeal, aerodynamic efficiency and fuel use, and the assemblers made modifications in line with their own experiences of urban driving. If the vehicle does not stand up well to rough roads, whom does one criticise? Surely the person responsible for specifying what was required in the first place.

If the need is to improve efficiency, effectiveness and profitability, then any given subject taught should be oriented to that need.

The modalities involved in this apparently simple but really fundamental and profound shift in emphasis are best worked out by BOCCIM, taking account of local conditions, but we suggest tender documents and any BOCCIM training policy or training directives should spell out the requirement for all courses to be re-designed focusing on outcomes.

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To illustrate this, a Supervisory Skills course would be renamed How Supervisors Can Improve Subordinates' Efficiency, Effectiveness and Contribution to Profitability. The title of each session in the course would be similarly focused. If performance-oriented training objectives are written for each course -- always an excellent method of ensuring designer, presenter and learners all focus on the same important outcomes of any training process -- BOCCIM should expect to see the same focus throughout on efficiency, effectiveness and profitability. Any inspection of handout material, or of a training session, would similarly expect to see regular reference to how supervisors can improve their subordinates' efficiency, effectiveness and profitability -- and not merely reference to assorted supervisory skills.

This shift would apply more particularly to short courses, since long syllabus-based courses are generally not open to this sort of flexibility.

Secondly, we recommend that courses should be designed to provide participants with opportunities to simulate more efficient and effective work (by means of case studies and role play exercises), and with opportunities to discuss and plan during the course how to contribute measurably to profitability on their return to work.

This requires course designers and trainers skilled in such methods, and there is a need to specify such skill requirement in tender documents and BOCCIM training policy directives. Possession of the requisite skill could be indicated by having passed a suitable training management course, a requirement which may need to be brought in after a suitable period of notice.

Thirdly, we recommend that course design should explicitly address the issue of motivational statements about why course participants need, and should want, to increase efficiency, effectiveness and contribution to profitability. It is important not to seem superficial (e.g. for the good of the nation), but we consider it essential discipline for designers and presenters if they are to continuously focus on outcomes.

Fourthly, we recommend course design should always include a session about the reality of organisational constraints on innovation and how to cope with these in regard to the subject of each course. Participants need to be informed about the reality of resistance to change, organisational inertia and hidden agendas -- and how they can practicably cope with these real aspects of business life. A challenge to an imaginative course designer would be to build such material into other aspects of the course, and practise participants in coping mechanisms when they participate in case studies, role plays and business games.

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Fifthly, we recommend course designers be tasked to build in appropriate forms of evaluation (from the five specified in Appendix One), and make time provisions for these both in the course programme and subsequently.

Sixthly, we recommend designers incorporate a Log Book follow-up System on selected courses (described in more detail below), and make time provision for that to be explained convincingly to participants during the course.

Finally, we consider that future training can be greatly enhanced by adpting the Performance Discrepancies approach to identifying training needs. There are broadly two types of training :-

*   the syllabus-based subject-type (e.g. Credit Control), and
*   the performance-based skills-type (e.g. How to be a More Efficient and Effective Credit Controller, and Contribute to Company Profitability).

> The traditional method of identifying "TRAINING NEEDS" is to offer management a menu of subjects to choose from, produce a frequency count, and then compile these subjects in an annual training calendar. The weakness in this approach is that managers may have different interpretations of what a subject encompasses.
>
> The other method is to ask managers to identify discrepancies (betwen desired and actual performance) in the work of their employees -- something they are familiar with -- and to ask them to indicate what new skills they want those employees to acquire. It is important to emphasise that Training may or may not be the best solution to any given performance discrepancy. The term "Training Needs" sometimes leaps to the unwarranted conclusion that training is needed, when the NEED may be for SELECTION, or NEW WORK PROCEDURES, or NEW EQUIPMENT or TRAINING, or a combination of two or more of these. That analysis and recommendation should be the role of the skilled training specialist.

Where a traditional "Training Needs" menu-driven approach has been used, management's role is reduced to trying to match a course title to a given employee (discrepant performer and/or employee needing new skills), often with no information about what knowledge and skills the course will try to impart. Generally, businesspeople do not make buying decisions on that basis.

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2. ADMINISTRATION OF COURSES

Survey respondents indicated that courses could be enhanced by stronger administration, as follows :-

* No late cancellations.
* Ensure courses start and end on time.
* Ensure that each course delivers what the brochure promises, both in focus and in full coverage of what is advertised.
* Write more informative brochures and advertisements -- covering course content/detailed objectives, whom the course is aimed at, prerequisite education/experience, details of presenters -- so that managers can identify suitable staff to attend.
* Screen applicants into appropriate levels, and areas of sector-specific interest, offering niche courses accordingly. We shall return to this below, when we discuss streaming.
* Follow-up training and re-adjust courses based on findings.

We commend these to BOCCIM's attention.

3. MARKETING OF COURSES

Survey respondents indicated that current marketing of courses is not strong enough, stating that it appears to rely on listings of courses that will be held and on word of mouth.
We recommend the following :-

* More detailed brochures, as described above, attractively designed to capture attention.
* Marketing strategy should consider electronic media, and should widen direct-response marketing by accessing other address lists.
* The new marketing strategy should be monitored to see which elements are cost-effective. The response to each medium (newspaper, magazine, BOCCIM list, other list, radio, TV, telephone selling) should be measured over a period of time, and the strategy refined.
* Consider engaging professional media consultants on a fixed term contract, and monitor effectiveness.

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4.   STREAMING COURSE PARTICIPANTS

This is a perennial issue in public training. A number of management respondents signalled dissatisfaction with the level of courses *vis-a-vis* level of participants.

Streaming is often a good idea -- and as often hamstrung by numbers of available course participants. However, it is also a real need, the pace of tuition for those of widely differing backgrounds affecting comprehension and retention.

The survey results indicate some support for the idea of streaming participants according to education and according to business size. Those with post-secondary vocational qualifications might require less basic business information than those with secondary or degree-level academic education only. Similarly, those in small businesses employing less than 25 people might require less attention to be paid to overcoming organisational constraints on innovation.

However, the differences reported in these areas we consider indicatively rather than conclusively significant, and accordingly we recommend that where possible participants should be streamed as follows :-

*   Where numbers warrant separating trainees, try to group those with post-secondary vocational qualifications.
*   Where numbers warrant it, group trainees from small businesses together or with those from medium businesses rather than with those from large businesses.

5.   DELIVERY OF TRAINING

This is the corollary of the first set of recommendations on the design of training. Where the course presenter is not the same person who designed the course, we recommend that BOCCIM exercise an inspectorate function, checking :-

*   that course handout material and, within resource constraints, a sample of actual presentations, to see if they explicitly focus on outcomes of increased efficiency, effectiveness and profitability
*   that each course does provide opportunities for practical work by trainees to develop skills in increasing efficiency, effectiveness and profitability
*   that statements are made, and exercises incorporated, to motivate trainees to become more efficient, effective and profitable
*   that a session is given on coping with organisational constraints
*   that evaluation is carried out and results analysed
*   that a Log Book System, where envisaged, is explained to participants.

This important inspection work is time-consuming, and BOCCIM may need to employ a qualified and experienced professional with good negotiating skills to carry out such work.

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6.   MANAGEMENT REINFORCEMENT OF TRAINING

We recommend that practicable management reinforcement should be built into all BOCCIM-sponsored courses, using a Log Book System or any suitable variation of this mechanism.

A document, perhaps in the form of an A.5 relatively-durable booklet, should be taken away from the course by each course participant, and shown to the appropriate Supervisor and/or Manager.

It is worth taking some time and trouble over the design and production of this booklet, to show the value that BOCCIM attaches to the mechanism.

Formally showing it to the participant's senior(s) serves the purpose of ensuring that they are kept informed about the course.

The cover of the booklet should identify the training provider, the course, the dates and the trainee.

The first page should briefly explain the purpose of the Log Book, in terms that busy senior businesspeople will appreciate, i.e. in terms of their own interests, and ask them to sign and date in the space provided against each of the tasks listed on subsequent pages, once the (now trained) employee demonstrates satisfactory performance of each task.
It is important not to produce something that is complicated, cumbersome or exhausting.

As well as a sample of signficant skills taught on the course, the Log Book might take account of the findings of the survey on the benefits of reinforcement, and specify that the participant should brief others about what was learned, and should make two formal suggestions about more efficient/effective/profitable work methods.

The onus to present the Log Book periodically to the senior should be the employee's, since it is considered unrealistic to place this burden on busy senior people.

The final page should request that the Log Book, once substantially completed, be returned to BOCCIM, to enable them to monitor the training. After a given period of time, say, 4 to 6 months, BOCCIM's training inspector could follow-up, if any Log Book has not been returned.

It will be apparent that some care needs to be taken with the design of Log Books. However, they do provide a practicable mechanism to facilitate management reinforcement of training, integrating senior people into the training process and promoting transfer and application of learning.

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7. ASSESSING CONTRIBUTION TO PROFITABILITY

It is methodologically feasible to assess such contribution, but it is obviously easier in certain areas such as sales than in others such as secretarial support.

Any such study would require certain assumptions to be made, about indicators of significant increases in profitability, about likely increase in profitability if there had been no training, about likely contribution of non-profit factors, and so on. It would also be necessary to have access to reliable and valid financial records of profit changes in specific organisations over given periods of time.

If such a study is envisaged, we recommend it be focused, certainly initially while an evaluative model is developed, on one type of course, yielding a homogeneous sample, where :-

* profitability contribution has been explicitly taught
* trainees have been taught how to objectively assess their own contribution over time after training
* that contribution is relatively easy to establish (e.g. retail selling; improve your business; credit control).

8. FEEDBACK FROM CUSTOMERS

The opportunity was taken during the interviews to record any comments we considered might form useful feedback to BOCCIM from its customers. These are often suggestions and insights from individuals, but we commend them to BOCCIM's attention.

a.   By means of personal interviews, adopting an open-mind brainstorming mode, undertake a detailed analysis of the wide-ranging needs of the private sector. This is more than just a training needs analysis where you list courses and ask the participating companies to rank them in areas of importance.

b.   BOCCIM should deliver the goods in areas other than just training information -- such as membership updates, acting on behalf of members, providing a labour advisory service, updating information on wage and salary levels, keeping members informed on what BOCCIM is doing on their behalf, by means of newsletter.

c.   A number of employers felt a role BOCCIM could adopt would be to provide specialist assistance to companies uncertain as to what training they should spend meagre resources on. This would take the form of an internal training needs analysis and could lead to training opportunities for BOCCIM.

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d.   One respondent indicated that the large tax rebate provision for training citizens, if more widely publicised in training course information, might attract companies to send more employees on courses.

e.   A number of comments were made about specialist courses, or courses at different levels or for specific sectors, aimed at particular niches.

*   Courses at a high level (e.g. tendering, financial management refresher training), not solely at introductory level.

*   Specialist area training for specific sectors (e.g. tendering for the construction industry; finance for non-financial managers in small/medium businesses covering cash management, costing and financial control; trends in computer development and information technology; advanced business strategy; customer service for the hotel industry run by a training manager from the hotel industry).

*   Basic business skills training, not academic, in practical areas like work ethics, customer care, service, even for those holding university qualifications.

*   Management courses covering managing people, decision-making, authority, accountability, responsibility, consequences, duties, assertiveness, and rationale for discipline; a number of managers stated a major area of concern as the perceived inability of supervisors and junior managers to make decisions on their own or to discipline their subordinates.

*   Topical seminars timed to coincide with particular developments – e.g. in employment law or procedure, perhaps jointly with trade unions; annual government budget; significant opportunities for growth; government policies.

f.   Suggestions were made about converting training courses into training schemes, i.e. interspersing periods of training with work experience. This can be integrated with the log book system, to ensure trainees try and apply what they have learned between each segment of a course. (We would also recommend formal examination/evaluation of knowledge gained at the end of the scheme, with certificates of achievement for those trainees who achieve a satisfactory level of performance. This is often a powerful incentive).

THESE EIGHT SETS OF RECOMMENDATIONS WILL SERVE TO ENHANCE THE IMPACT OF FUTURE BOCCIM-SPONSORED COURSES.

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APPENDIX ONE

TYPOLOGY OF TRAINING EVALUATION

Evaluation (checking the value) of training is conventionally understood to mean written tests of knowledge (essays, or multiple-choice tests). This is only one way, and not the most useful way, of checking value. The following 5 stage framework ranges from the simplest, most-used and least-useful way of checking the value of training to the most complex, least-used and most-useful:

- **REACTION**
  What do trainees think about the value of the training?

- **GAIN IN KNOWLEDGE**
  Do they know more at the end than at the start of the training?

- **GAIN IN SKILL**
  Have they acquired new (or improved) skills by the end of the course?
  (Skills can be interpersonal, procedural or analytical, for example, as well as mechanical, and there is a well-established methodology to measure skill gain at the end of training).

- **CHANGE IN BEHAVIOUR BACK AT WORK**
  Have trainees transferred their new/improved skills into their work?
  (The crucially central issue of the transfer of learning from classroom to work raises questions about the psychological similarity of the training and working environments, focusing attention on the instructional methods used).

- **EFFECTS OF BEHAVIOUR CHANGE**
  Have the original performance discrepancies (which the training was designed to eliminate or reduce) been eliminated?
  (Performance discrepancies can be actual, those responsible for generating sufficient profit are not meeting targets, the sales manager is missing opportunities, e.g. or potential, a new general manager has been appointed and he has never done this level of generalist work before, so we can assume his performance will be deficient).

APPENDIX TWO

EVALUATION DESIGN

A. RESEARCH QUESTIONS

1.   What has been the impact of the training courses?

2.   How can the impact of future courses be enhanced?

In order to assess the impact of the courses, we have to make explicit certain assumptions.

B. ASSUMPTIONS

1.   <u>Impact</u>

a(i)   A significant percentage of participants gained knowledge and skill (about working more efficiently and effectively, and how to contribute to profitability).

(ii)   Where they did not, this is because:-

- the training design of a specific course did not focus on these outcomes
- of poor delivery (e.g. participants did not see how they could contribute to profitability; or there was no opportunity during the course to practise more efficient and effective work methods).

b(i)   A significant percentage of participants who did gain this knowledge and skill transferred these gains into their workplaces.

(ii)   Where they did not, this is because:-

- training design and delivery did not facilitate this (by giving opportunities to practice, and by promoting psychological similarity of the learning and working environments);
- of organisational constraints (e.g. wrong participants selected; supervisors antagonistic to subordinates returning from courses).

c(i)   A significant percentage of participants who transferred these gains into their workplaces have been working more efficiently.

(ii)   Where they have not, this is because:

- they were insufficiently motivated by the training to apply what they learned, or they developed insufficient skill to counter organisational constraints.

d(i)   A significant percentage of participants who transferred these gains into their workplaces have been working more effectively.

(ii)   Where they have not, this is because:

- they were insufficiently motivated by the training to apply what they learned, or they developed insufficient skill to counter organisational constraints.

e(i)   For a significant percentage of sponsoring companies, whose employees have shown increases in efficiency and/or effectiveness, this has resulted in increased profitability.

(ii)   Where it has not, this is because:

- of intervening variables (e.g. recession, unwise business decisions by others);
- organisational constraints.

f   For any sponsoring company which has experienced increased profitability, the training undergone by participants can be considered to have brought an adequate Return on Investment.

g   There are significant differences (in knowledge/skill gain, transfer, efficiency, effectiveness, and contribution to profitability) by:

(i)   gender
(ii)   educational level of participants
(iii)   business type
(iv)   business size
(v)   business location

h   There are significant differences (in transfer, efficiency, effectiveness) according to:

- whether training was reinforced, and there are significant differences (in contribution to profitability)
- whether management played an effective role in:
  * identifying performance deficiencies and the need for new skills (when the need for training was first identified);
  * selecting participants;
  * facilitating and monitoring transfer of knowledge and skill back into the workplace;
  * reinforcing training.

C.   DEFINITION OF TERMS

It is necessary to define in concrete operational terms certain terms we will be using, in order to ensure all concerned share the same definitions.

Significant percentage

If, say, of 50% of participants on short training courses (less than 5 days in length) gain new knowledge or skill (or improve their knowledge or skill) in one or two areas, we could consider that significant.

Participants

Short and long course 1994/95 course participants.

More efficiently

Making more productive use of inputs (e.g. time, money, materials) to obtain outputs (e.g. products, services, letters, reports, etc.).

More effectively

Achieving more of whatever goals an organisation has set itself (e.g. getting more sales orders).

Training design

The official course document, spelling out any training objectives and containing the course programme or syllabus.

Delivery

The training methods used in terms of the course programme, specifically presentation and demonstration by the trainer, and practice by the participants (by means of practice, case study, discussion, role play, simulation).

Transfer (of knowledge and skill gained through training) into the workplace

Applying course material back at work.

Psychological similarity (of learning and working environments)

The skill of the designed and trainers in simulating working experience in the training area, not necessarily physically identical to work since this can by prohibitively costly in time and resources, but with sufficient psychological cues that the participant can see the relevance to his or her work environment. This can facilitate transfer of learning from classroom to work.

Organisational Constraints

Workplace factors that discourage or forbid application of new knowledge and skills. These can include disinterest or hostility from peers and seniors, sheer pressure of work, limited time. It also happens that participants sometimes do not understand the complex dynamics of organisational innovation.

Increased Profitability

Above what might be expected if no training had taken place.

Intervening Variables

Any factor which might have affected profitability positively or negatively, other than the training course the impact of which is being assessed (i.e. a non-training factor).

<u>Return on Investment</u> (mentioned in Terms of Reference, Illustrative Task List)

A comparison of costs and benefits of training. "Costs" include cost of salary and perks while away on course, any travel/accommodation expenses by sponsoring business, fees paid for course, estimated cost of any lost opportunities while absent on training, and so on. "Benefits" would be the portion of increased profit that could be ascribed to new behaviour as result of training.

<u>Significant Differences</u>

This can be done by statistical tests of significance. We suggest rather a common-sense approach since this is more accessible to readers without statistical education. For example, if there is a difference of 10% between women and men on any given dimension (e.g. transfer), we could consider that a significant gender difference; similarly in regard to efficiency, effectiveness and contribution to profitability. The same approach could be applied to educational differences of participants, and type, size and location of businesses.

<u>Reinforcement of Training</u>

Promoting transfer and application, by various follow-up mechanisms such as a log book specifying the skills taught, and requesting a supervisor to confirm application back at work by certifying acceptable transfer; visits by training staff; a letter to the management of the sponsoring organisation requesting interest in and support for participant, and so on.

D. POPULATION AND SAMPLE(S)

The population of interest is those about whom, and from whom, we need information, to enable us to check the correctness or otherwise of our assumptions, and thereafter answer the research questions.

We are taking the population of interest as the trainees in the various BOCCIM training initiatives under the BPED programme (BOCCIM Contracted and Scholarship Programme) 1 000 plus 300 participants per annum.

At this point we need to return to the Assumptions, and determine the best source of information to enable us to check each one.

We see possible sources of information arising out of:

- A sample survey carried out in respect of current 1995 course participants, examining course documents from 1995 courses and sitting in on an on-going course to assess delivery standards.

- A sample survey of 1994 participants, their supervisors and the management of their sponsoring companies. (Note that the original design was amended based on local expert knowledge in BOCCIM and BPED, resulting in some participants from 1995 being included. The Terms of Reference stated that the sample design must be sensitive to various factors, and BOCCIM staff indicated which individuals and companies should be included in the survey, using a form of non-random quota sampling based on local judgement).

E.   DATA-COLLECTION INSTRUMENTS

At the design stage, a mixture of instruments was deemed appropriate.

1.   A behavioural test, and observation, of a non-random sample of on-going 1995 courses, to check assumption a (i-ii).

2.   A mail (or hand-delivered) questionnaire survey of participants on 1994 (and some 1995) courses, to check our assumptions; no sample is recommended, however, the 1994/95 participants could usefully be considered a non-random sample of all participants since the BPED programme was instituted.

3.   Interviews of managing directors/owners in a random stratified sample of sponsoring organisations in 1994/95, to check a number of our various assumptions.

4.   Interviews of immediate supervisors in the same sample, to check assumptions c (i) and d(i).

F.   DATA

The information such a study obtains lends itself to tabulation, description and analysis.

APPENDIX THREE

EXAMPLES OF INSTRUMENTS USED TO COLLECT DATA

APPENDIX 3.1

COVERING LETTER AND QUESTIONNAIRE USED BY ENUMERATOR

Dear Participant

EVALUATION OF BOCCIM TRAINING COURSES

I am carrying out an evaluation of training courses run for BOCCIM in 1994/95.

BOCCIM have requested this to see how training courses can be further improved, to meet your needs as fully as possible.

I would be grateful if you will complete the attached brief questionnaire, as carefully as you can. The results will be used to alter future training courses. You will notice the questionnaire does not ask for your name or company, so you may be completely frank in your answers.

The questionnaire contains 11 questions and should take only 15 minutes of your time to complete. Please select and mark your answer in each case and make brief written comment if you wish.

This letter and questionnaire are being handed to a sample of participants who attended BOCCIM courses in 1994/95. You have been included in a random sample.

Please complete the questionnaire and hand it back to the bearer. Thank you for your co-operation. Your replies will be very useful to BOCCIM, and will help to improve future training in Botswana.

Yours sincerely

QUESTIONNAIRE
to evaluate BOCCIM training course attended by yourself

1. What was the SUBJECT of the training course you attended in 1994?

   _____

2. Please list TWO USEFUL THINGS you learned on that course

   _____

   _____

3. Have you **been able to** USE your **NEW KNOWLEDGE AT WORK** since the course?
   Please tick ☐ the box of your choice.

   ☐ Yes   If you <u>have</u>, please describe briefly how it helped

   _____

   _____

   Please indicate whether you have been given additional responsibilities as a result of your new knowledge.

   _____

   _____

   ☐ No   If you have <u>not</u> been able to use knowledge from the course, please indicate why not. (You may tick more than one box)

   ☐   Training not adequate
       Please explain (e.g. training too short; not enough practice; could not see how to apply it)

   _____

   _____

   ☐   Supervisor or co-workers opposed to new idea
       Please explain (e.g. not interested in hearing my ideas; seem threatened)

   _____

   _____

   ☐   Training not relevant to my job

   _____

   _____

☐ Other reasons
Please give details

_____

_____

IF YOU TICKED <u>YES</u> ☐ PLEASE COMPLETE <u>QUESTIONS 4 TO 9</u>
IF YOU TICKED <u>NO</u> ☐ PLEASE GO TO <u>QUESTIONS 6 TO 9</u>
Do not answer questions 4 & 5

4. If you <u>have</u> been able to apply what you learned, have you become **MORE EFFICIENT** in your daily work?:

☐ Yes If you <u>have</u>, please give an example of how you are more efficient (e.g. how you are working faster, or saving money, or materials)

_____

_____

☐ No   If you have <u>not</u> been able to become more efficient, please indicate why not. (You may tick more than one box)

   ☐   Further efficiency is not possible

   ☐   Supervisor or co-workers opposed

   ☐   Other please give details

_____

_____

Comment (if any)

_____

_____

5. If you **have** been able to apply what you learned, have you become more **EFFECTIVE** in your work?

☐ Yes If you <u>have</u>, please give an example of how you are more <u>effective</u> in helping the company achieve its goals
(e.g. more sales orders, more customers, more income

_____

_____

☐ No   If you have <u>not</u> been able to be more efficient, please state why not.

   ☐   Further effectiveness is not possible

☐   Supervisor or co-workers opposed

☐   Other please give details

_____

_____

Comment (if any)

_____

_____

5.(a) ☐ Yes   If it was reinforced, how was this done? (You may tick more than one box)

☐   Manager discussed course on my return

☐   Supervisor asked for my suggestions

☐   Co-workers asked about the course

☐   I was asked to brief others about what I learned

☐   I was asked to make suggestions about more efficient and effective work methods

☐   Trainers followed up by contacting me at work

Has your company conducted any "in company" training that you see as having reinforced the training you received on the BOCCIM sponsored course you did.

☐   Other (please give details of any other ways in which the training was reinforced)

_____

_____

_____

6.   Please state your gender

☐   Female
☐   Male

7.   Please state your highest educational level

_____

8.   Please state the size of the company you work for (small under 25 employees; medium 25 to 100; large over 100 employees).

9.   What type of company do you work for?* _____

10.   Any other comments you would like to make about the training you received

_____

_____

_____

_____

**THANK YOU FOR YOUR ASSISTANCE.   YOUR REPLIES WILL HELP
BOCCIM TO IMPROVE FUTURE TRAINING COURSES.**

PLEASE HAND THIS QUESTIONNAIRE TO THE BEARER

---

* Please fit your company into one of the following categories, agriculture, mining and quarrying, manufacturing, electricity and water supply, construction, wholesale and retail, road transportation, finance, insurance, real estate and business services, social and personal services (profit and non-profit).

APPENDIX 3.2

COVERING LETTER AND QUESTIONNAIRE ADMINISTERED BY POST

Dear Participant

EVALUATION OF BOCCIM TRAINING COURSES

I am carrying out an evaluation of training courses run for BOCCIM in 1994/95.

BOCCIM have requested this to see how training courses can be further improved, to meet your needs as fully as possible.

I would be grateful if you will complete the attached brief questionnaire, as carefully as you can. The results will be used to alter future training courses. You will notice the questionnaire does not ask for your name or company, so you may be completely frank in your answers.

The questionnaire contains 11 questions and should take only 15 minutes of your time to complete. Please select and mark your answer in each case and make brief written comment if you wish.

This letter and questionnaire are being handed to a sample of participants who attended BOCCIM courses in 1994/95. You have been included in a random sample.

Please complete the questionnaire and hand it back to the bearer. Thank you for your co-operation. Your replies will be very useful to BOCCIM, and will help to improve future training in Botswana.

Yours sincerely

QUESTIONNAIRE
to evaluate BOCCIM training course attended by yourself

___

1. What was the SUBJECT of the training course you attended in 1994?

   ___

2. Please list TWO USEFUL THINGS you learned on that course

   ___
   ___

3. Have you **been able to USE** your **NEW KNOWLEDGE AT WORK** since the course?
   Please tick ☐ the box of your choice.

   ☐ Yes If you <u>have</u>, please describe briefly how it helped

   ___
   ___

   Please indicate whether you have been given additional responsibilities as a result of your new knowledge.

   ___
   ___

   ☐ No If you have <u>not</u> been able to use knowledge from the course, please indicate why not. (You may tick more than one box)

   ☐ Training not adequate
       Please explain (e.g. training too short; not enough practice; could not see how to apply it)

       ___
       ___

   ☐ Supervisor or co-workers opposed to new idea
       Please explain (e.g. not interested in hearing my ideas; seem threatened)

       ___
       ___

   ☐ Training not relevant to my job

       ___
       ___

☐ Other reasons
Please give details

_____

_____

IF YOU TICKED <u>YES</u> ☐ PLEASE COMPLETE <u>QUESTIONS 4 TO 9</u>
IF YOU TICKED <u>NO</u> ☐ PLEASE GO TO <u>QUESTIONS 6 TO 9</u>
Do not answer questions 4 & 5

4.   If you <u>have</u> been able to apply what you learned, have you become **MORE EFFICIENT** in your daily work?:

☐ Yes   If you <u>have</u>, please give an example of how you are more efficient (e.g. how you are working faster, or saving money, or materials)

_____

_____

☐ No   If you have <u>not</u> been able to become more efficient, please indicate why not. (You may tick more than one box)

    ☐   Further efficiency is not possible

    ☐   Supervisor or co-workers opposed

    ☐   Other please give details

_____

Comment (if any)

_____

_____

5.   If you **have** been able to apply what you learned, have you become more **EFFECTIVE** in your work?

☐ Yes   If you <u>have</u>, please give an example of how you are more effective in helping the company achieve its goals
(e.g. more sales orders, more customers, more income).

_____

_____

☐ No   If you have <u>not</u> been able to be more efficient, please state why not.

    ☐   Further effectiveness is not possible

    ☐   Supervisor or co-workers opposed

☐   Other please give details

_____

_____

Comment (if any)

_____

_____

5.(a) ☐ Yes   If it was reinforced, how was this done? (You may tick more than one box)

       ☐   Manager discussed course on my return

       ☐   Supervisor asked for my suggestions

       ☐   Co-workers asked about the course

       ☐   I was asked to brief others about what I learned

       ☐   I was asked to make suggestions about more efficient and effective work methods

       ☐   Trainers followed up by contacting me at work

            Has your company conducted any "in company" training that you see as having reinforced the training you received on the BOCCIM sponsored course you did.

       ☐   Other (please give details of any other ways in which the training was reinforced)

_____

_____

_____

6.   Please state your gender

     ☐   Female
     ☐   Male

7.   Please state your highest educational level

_____

8.   Please state the size of the company you work for (small under 25 employees; medium 25 to 100; large over 100 employees).

9.   What type of company do you work for?* _____

10.   Any other comments you would like to make about the training you received

_____

_____

_____

_____

THANK YOU FOR YOUR ASSISTANCE. YOUR REPLIES WILL HELP
BOCCIM TO IMPROVE FUTURE TRAINING COURSES.

PLEASE HAND THIS QUESTIONNAIRE IN THE ATTACHED STAMP SELF-
ADDRESSED ENVELOPE TO: Mrs O C Masire, Training Manager, BOCCIM
P O Box 432 Gaborone BY 14th August 1995

* Please fit your company into one of the following categories, agriculture, mining and quarrying, manufacturing, electricity and water supply, construction, wholesale and retail, road transportation, finance, insurance, real estate and business services, social and personal services (profit and non-profit).

APPENDIX 3.3

INTERVIEW SCHEDULE
to evaluate BOCCIM training course attended by your employee

NOTE TO INTERVIEWER: *Complete this before arriving at the company.*   Introduce
yourself to the Senior Official (e.g. MD), and explain who you are, who you are representing,
why you are carrying out the training evaluation, why this company was selected for interview,
and arrange to see the training participant's immediate Supervisor (in order to get some
concrete facts for your subsequent discussion with the senior official).

Name of Employee _____
(i.e. Training course participant)

Gender _____

Educational level _____

Title of Course _____

Date(s) of Course _____

Company _____

Business Type _____

Business Size _____

Business Location _____

Name of Immediate Supervisor _____

Name of Senior Official _____

QUESTIONS FOR PARTICIPANT'S IMMEDIATE SUPERVISOR

NOTE TO INTERVIEWER: *Explain to the Supervisor who you are, who you are
representing, why you are carrying out the interview, which companies you selected for
interview and why he/she was selected. Request help, and build rapport before beginning.*

(Questions to break the ice)

1.   Was it your recommendation that .... (employee) should attend the course?

2.   Did you discuss the course with .... afterwards?

3.   Did you notice any changes in the way .... carried out work after attending the course?

(Questions about Impact on EFFICIENCY - *but don't use this word until question 8)*

4.   Has .... worked FASTER in any areas since the course?
(Yes/No Details)

---

5.   Has .... made any suggestions to you about ways to save the company MONEY, since the course? (Yes/No Details)

---

6.   Has .... made any suggestions to you about reducing the quantity of raw MATERIALS used? (Or other inputs or supplies/e.g. paper in an office environment) (Yes/No Details)

---

7.   Have you observed any actions taken by .... since the course to use any work resources more ECONOMICAL? (Yes/No Details)

---

8.   Do you consider that .... is working more efficiently since attending the course? (Yes/No Details)

(Questions about Impact on EFFECTIVENESS - but don't use this word until question 10)

9.   Since the course, has .... done any of the following:
(*NOTE TO THE INTERVIEWER : the following activities have been inferred from the course titles. Usually only ONE will apply in each case - choose those you think applicable rather than read them all out. Ask for more detail and record details at the end of this question).*

        ☐   obtained more sales orders than before?

        ☐   made fewer errors in books and accounts?

☐   made fewer computer errors than before?

☐   displayed a better attitude toward customers?

☐   had fewer interpersonal staff problems?

☐   exercised better financial control?

☐   had better success in responding to tenders?

☐   produced better business letters?

☐   produced better training courses?

☐   managed production more effectively?

Details (story, example, figures, etc.)

_____

_____

_____

_____

_____

_____

_____

10.   Generally, do you consider .... more _effective_ since the course?
      ("More effective" means achieving more of whatever specific goals the organisation
      has set for itself)

_____

_____

_____

_____

11.   Did .... attendance at the .... course have any (other) impact
      on the company?

_____

_____

_____

_____

12.   Are there any other comments you could like to make?

_____

_____

_____

_____

_____

QUESTIONS FOR SENIOR OFFICIAL OF COMPANY (from which training course participant came)
NOTE TO INTERVIEWER: briefly repeat who you are representing, why you are carrying out interview, why this company was selected for interview, and the fact that you have spoken to the trainee's supervisor. Build rapport.

(Icebreakers)

13.   How's business? How is your company doing? .... (Your interest is in whether the company has slumped, soared, or just continued as before since the beginning of 1994 and particularly in 1995).

NOTE TO INTERVIEWER: Say: .... Supervisor considers that the course has (or has not) had some impact on the organisation.
(Where there is some impact, briefly describe what the Supervisor has said, to lead the senior official onto common ground, before proceeding with the interview).
If Supervisor says employee is not more efficient/effective/different in any way, I would still ask senior official questions 14 & 15, in a slightly different way (omit reference in question 14 to Supervisor's negative judgement) - since Supervisor may be wrong, may be biased, or may be part of the problem. If senior disagrees with Supervisor, and states that trainee has had a positive impact take the senior's word.

(Questions about Impact on Profitability)

14.   Say: "I realise it is difficult to state categorically that attendance at a course has or has not increased profitability. However, we would find it very valuable to get some indication from you about whether .... work since the course (which is more efficient/effective according to his/her Supervisor),
has contributed in any way to increased profitability?
("Increased profitability" means more that might have been expected if the training had not taken place).

Can you please comment : on the company's performance generally (see answer to question 13), and on the performance of the employee's department, and on any possible contribution to increased profitability?

_____

_____

_____

15.   How was the participant selected? (Who selected him/her for training, and why?)

_____

_____

_____

_____

16.   What happened when .... returned from the training course?
        (For example: Was the participant de-briefed?
        Asked to make suggestions? Asked to speak formally to other about the
        training?   Asked to make suggestions about more efficient and more
        effective and more profitable work methods? Did you meet the participant?
        Did you follow-up a month or so later to see if anything had changed?

_____

_____

_____

_____

17.   Are there any other comments you would like to make?

_____

_____

_____

_____

APPENDIX FOUR

TABLES OF RESULTS IF INVESTIGATION

1. Response to course participants' QUESTIONNAIRE.

2. Response to INTERVIEW SCHEDULE

3. Respondents who reported they GAINED knowledge/skill from courses.

4. Respondents who stated they TRANSFERRED new knowledge into workplaces.

5. Respondents who did not transfer knowledge into workplaces, shown by reason given.

6. Respondents who stated they became more EFFICIENT as result of courses.

7. Respondents who did not become more efficient, shown by reason given.

8. Supervisors/Managers who stated employees became more efficient as result of courses, shown by indicator of efficiency.

9. Respondents who stated they became more EFFECTIVE as result of courses.

10. Respondents who did not become more effective, shown by reason given.

11. Supervisors/Managers who stated employees became more effective as result of courses, shown by indicator of effectiveness.

12. Managers who considered employees contributed to increased PROFITABILITY, after attending courses.

13. Distribution of respondents by GENDER.

14. Distribution of respondents by EDUCATION.

15. Distribution of respondents by BUSINESS TYPE

16. Distribution of respondents by BUSINESS SIZE.

17. Difference in knowledge gained, by GENDER.

18. Difference in TRANSFER, by GENDER.

19. Difference in EFFICIENCY, by GENDER.

20. Difference in EFFECTIVENESS, by GENDER.

21. Difference in knowledge GAINED, by EDUCATION.

22. Difference in TRANSFER, by EDUCATION.

23. Difference in EFFICIENCY, by EDUCATION.

24. Difference in EFFECTIVENESS, by EDUCATION.

25. Difference in knowledge GAINED, by BUSINESS TYPE.

26. Difference in TRANSFER, by BUSINESS TYPE.

27. Difference in EFFICIENCY, by BUSINESS TYPE.

28. Difference in EFFECTIVENESS, by BUSINESS TYPE.

29. Difference in knowledge GAINED, by BUSINESS SIZE.

30. Difference in TRANSFER, by BUSINESS SIZE.

31. Difference in EFFICIENCY, by BUSINESS SIZE.

32. Difference in EFFECTIVENESS, by BUSINESS SIZE.

33. DISTRIBUTION OF INTERVIEWS, by BUSINESS LOCATION.

34. Extent to which training was REINFORCED, back at work, according to course participants.

35. Frequency of METHOD of reinforcement, shown as a percentage of all respondents who experienced reinforcement.

36. Difference in TRANSFER of knowledge, shown by whether REINFORCED or not.

37. Difference in increased EFFICIENCY, shown by whether REINFORCED or not.

38. Difference in increased EFFECTIVENESS, shown by whether REINFORCED or not.

Table 1 : RESPONSE TO COURSE PARTICIPANTS' QUESTIONNAIRE

No of Questionnaires Administered	Returned	%Response
600	171	29

Source : Participants' Questionnaire returned by hand (Appendix 3.1) and by post
(Appendix 3.2)

Table 2 : RESPONSE TO INTERVIEW SCHEDULE

1994/95 Sponsoring Organisations	Sample	%	Respondents	%
363	50	14	32/363	9

Source : Completed interview Schedules (Appendix 3.3)

Table 3 : RESPONDENTS WHO REPORTED THEY GAINED
KNOWLEDGE/SKILL FROM COURSES

Respondents	Number	%
Who listed 2 things learned	141	82
Who listed 1 thing learned	22	13
Who did not complete question	8	5
Totals	171	100

Source : Question 2 of Participants' Questionnaire ("Please list 2 useful things you learned on
{your} course")

Table 4 : RESPONDENTS WHO STATED THEY TRANSFERRED NEW
KNOWLEDGE INTO WORKPLACES

Number of Respondents	Yes	%	No	%
171	136	80	35	20

Source : Question 3 of Participants' Questionnaires

Table 5 : RESPONDENTS WHO DID NOT TRANSFER KNOWLEDGE INTO WORKPLACES, SHOWN BY REASON GIVEN

Reason	Number
Training not adequate	13
Supervisor/co-workers opposed	4
Training not relevant to job	5
Other reasons	14
Totals	36

Source : Question 3 of Participants' Questionnaire. Some gave more than one reason.

Table 6 : RESPONDENTS WHO STATED THEY BECAME MORE EFFICIENT AS RESULT OF COURSES

Number of Respondents	More efficient	%	No	%
136	120	88	16	12

Source : Question 3 of Participants' Questionnaires

Table 7 : RESPONDENTS WHO DID NOT BECOME MORE EFFICIENT, SHOWN BY REASON GIVEN

Reason	Number
Further efficiency not possible	4
Supervisor/co-workers opposed	2
Other reasons	8
No reason given	2
Totals	16

Source : Question 4 of Participants' Questionnaires.

Table 8 : SUPERVISORS/MANAGERS WHO STATED EMPLOYEES BECAME
MORE EFFICIENT AS RESULT OF COURSES, SHOWN BY
INDICATORS OF EFFICIENCY

Indicator of Efficiency	Number	Total	% More efficient
Worked faster after course	20	32	63
Suggested ways to save money	11	32	34
Worked more economically	9	32	28
Suggested ways to reduce materials	1	32	3
Overall more efficient	24	32	75

Source : Questions 4 to 8 of Interview Schedules

Table 9 : RESPONDENTS WHO STATED THEY BECAME MORE EFFECTIVE AS
RESULT OF COURSES

Number of Respondents	More effective	%	No	%
136	114	84	22	16

Source : Question 5 of Participants' Questionnaires

Table 10 : RESPONDENTS WHO DID NOT BECOME MORE EFFECTIVE,
SHOWN BY REASON GIVEN

Reason	Number
Further effectiveness not possible	6
Supervisor/co-workers opposed	1
Other reasons	5
No reason given	10
Totals	22

Source : Question 5 of Participants' Questionnaires.

Table 11 : SUPERVISORS/MANAGERS WHO STATED EMPLOYEES
BECAME MORE EFFECTIVE AS RESULT OF COURSES,
SHOWN BY INDICATOR OF EFFECTIVENESS

Indicator of effectiveness	Number
Better attitude to customers	13
Fewer errors with computers	11
Fewer interpersonal staff problems	8
Fewer errors in books and accounts	6
More sales orders	5
Better financial control	3
Better business letters	2
More success with tenders	1
Better training courses	0
Better production	0
Overall more effective	32

Source : Questions 9 and 10 of Interview Schedules. Some gave more than one indicator.

Table 12 : MANAGERS WHO CONSIDERED EMPLOYEES CONTRIBUTED
TO INCREASED PROFITABILITY, AFTER ATTENDING COURSES

Has employee's work, since the course, contributed to profitability	Number	%
Yes	4	13
No	9	28
Not able to say	19	59
Total respondents	32	100

Source : Question 14 of Interview Schedules.

Table 13 : DISTRIBUTION OF RESPONDENTS BY GENDER

Gender	Number	%
Female	115	68
Male	55	32

Source : Question 6 of Participants' Questionnaires

Note   1 respondent did not state gender

Table 14 : DISTRIBUTION OF RESPONDENTS BY EDUCATION

Level of Education	Number	%
Below 'O' Level	53	32
'O' and 'A' Levels	49	29
Post-Secondary (14 Certificates, 22 Diplomas)	36	22
Degree (25 Bachelors, 3 Masters)	28	17
Totals	166	100

Source : Question 7 of Participants' Questionnaires

Note: 5 respondents did not state educational level

Table 15 : DISTRIBUTION OF RESPONDENTS BY BUSINESS TYPE

Type of Business	Number	%
Social & Personal Services (profit & non-profit)	65	40
Wholesale and Retail	29	18
Manufacturing	23	14
Real Estate and Business Services	13	8
Finance	10	6
Road and Other Transportation	7	4
Electricity & Water Supply	6	4
Insurance	4	3
Agriculture	2	1
Mining & Quarrying	2	1
Construction	2	1
Totals	163	100

Source : Question 9 of Participants' Questionnaires

Note: 8 respondents did not state type of business

Table 16 : DISTRIBUTION OF RESPONDENTS BY BUSINESS SIZE

Size	Number	%
Small (under 25 employees)	44	28
Medium (25 - 100 employees)	36	23
Large (over 100 employees)	78	49
Totals	158	100

Source : Question 8 of Participants' Questionnaires

Note: 13 respondents did not state business size

Table 17 : DIFFERENCE IN KNOWLEDGE GAINED, BY GENDER

Knowledge Gender	No Gain	Gain	Total	%
Female	5	110	115	96
Male	3	52	55	95

Source : Questions 2 & 6 of Participants' Questionnaire

Table 18 : DIFFERENCE IN TRANSFER, BY GENDER

Transfer Gender	No transfer	Transfer	Total	%
Female	23	92	115	80
Male	12	43	55	78

Source : Questions 3 & 6 of Participants' Questionnaires

Table 19 : DIFFERENCE IN EFFICIENCY, BY GENDER

Efficiency Gender	No change	More efficient	Total	%
Female	9	106	115	92
Male	7	48	55	87

Source : Questions 4 & 6 of Participants' Questionnaire

Table 20 : DIFFERENCE IN EFFECTIVENESS, BY GENDER

Effectiveness Gender	No change	More effective	Total	%
Female	16	99	115	86
Male	6	49	55	89

Source : Questions 5 & 6 of Participants' Questionnaires

Table 21: DIFFERENCE IN KNOWLEDGE GAINED, BY EDUCATION

Knowledge Education	No gain	Gain	Total	%
Below 'O' Level	0	53	53	100
'O' and 'A' Levels	2	47	49	96
Post-Secondary	5	31	36	86
Degree	1	27	28	96

Source : Questions 2 & 7 of Participants' Questionnaires

Table 22: DIFFERENCE IN TRANSFER, BY EDUCATION

Transfer Education	No transfer	Transfer	Total	%
Below 'O' Level	9	44	53	83
'O' and 'A' Levels	12	37	49	76
Post-Secondary	3	33	36	92
Degree	10	18	28	64

Source : Questions 3 & 7 of Participants' Questionnaires

Table 23: DIFFERENCE IN EFFICIENCY, BY EDUCATION

Efficiency Education	No change	More efficient	Total	%
Below 'O' Level	4	49	53	92
'O' and 'A' Levels	4	45	49	92
Post-Secondary	4	32	36	89
Degree	3	25	28	89

Source : Questions 4 & 7 of Participants' Questionnaires

Table 24: DIFFERENCE IN EFFECTIVENESS, BY EDUCATION

Effectiveness	No change	More effective	Total	%
Education				
Below 'O' Level	4	49	53	92
'O' and 'A' Levels	6	43	49	88
Post-Secondary	7	29	36	81
Degree	4	24	28	86

Source : Questions 5 & 7 of Participants' Questionnaires

Table 25 : DIFFERENCE IN KNOWLEDGE GAINED, BY BUSINESS TYPE

Knowledge	No Gain	Gain	Total	%
Type				
Social & Personal Services	3	62	65	95
Wholesale and Retail	1	28	29	97
Manufacturing	2	21	23	91
Real Estate & Business Services	1	12	13	92
Finance	0	10	10	100
Road & Other Transportation	0	7	7	100
Electricity & Water Supply	0	6	6	100
Insurance	0	4	4	100
Agriculture	0	2	2	100
Mining & Quarrying	1	1	2	50
Construction	0	2	2	100

Source : Questions 2 & 9 of Participants' Questionnaire

Table 26 : DIFFERENCE IN TRANSFER, BY BUSINESS TYPE

Transfer Type	No transfer	Transfer	Total	%
Social & Personal Services	13	52	65	80
Wholesale and Retail	7	22	29	76
Manufacturing	4	19	23	83
Real Estate & Business Services	3	10	13	77
Finance	1	9	10	90
Road & Other Transportation	1	6	7	86
Electricity & Water Supply	3	3	6	50
Insurance	2	2	4	50
Agriculture	0	2	2	100
Mining & Quarrying	1	1	2	50
Construction	0	2	2	100

Source : Questions 3 & 9 of Participants' Questionnaire

Table 27 : DIFFERENCE IN EFFICIENCY, BY BUSINESS TYPE

Efficiency Type	No change	More efficient	Total	%
Social & Personal Services	6	59	65	91
Wholesale and Retail	3	26	29	90
Manufacturing	2	21	23	91
Real Estate & Business Services	0	13	13	100
Finance	2	8	10	80
Road & Other Transportation	1	6	7	86
Electricity & Water Supply	0	6	6	100
Insurance	0	4	4	100
Agriculture	0	2	2	100
Mining & Quarrying	0	2	2	100
Construction	0	2	2	100

Source : Questions 4 & 9 of Participants' Questionnaires

Table 28 : DIFFERENCE IN EFFECTIVENESS, BY BUSINESS TYPE

Effectiveness Type	No change	More effective	Total	%
Social & Personal Services	8	57	65	88
Wholesale and Retail	2	27	29	93
Manufacturing	5	18	23	78
Real Estate & Business Services	1	12	13	92
Finance	2	8	10	80
Road & Other Transportation	1	6	7	86
Electricity & Water Supply	0	6	6	100
Insurance	0	4	4	100
Agriculture	0	2	2	100
Mining & Quarrying	0	2	2	100
Construction	1	1	2	50

Source : Questions 5 & 9 of Participants' Questionnaires

Table 29 : DIFFERENCE IN KNOWLEDGE GAINED, BY BUSINESS TYPE

Knowledge Type	No gain	Gain	Total	%
Small	1	43	44	98
Medium	1	35	36	97
Large	4	74	78	95

Source : Questions 2 & 8 of Participants' Questionnaire

Table 26 : DIFFERENCE IN TRANSFER, BY BUSINESS TYPE

Transfer Type	No transfer	Transfer	Total	%
Small	6	38	44	86
Medium	7	29	36	81
Large	18	60	78	77

Source : Questions 3 & 8 of Participants' Questionnaire

Table 31 : DIFFERENCE IN EFFICIENCY, BY BUSINESS TYPE

Efficiency	No change	More efficient	Total	%
Type				
Small	4	40	44	91
Medium	2	34	36	94
Large	8	70	78	90

Source : Questions 4 & 8 of Participants' Questionnaires

Table 32 : DIFFERENCE IN EFFECTIVENESS, BY BUSINESS TYPE

Effectiveness	No change	More effective	Total	%
Type				
Small	3	41	44	93
Medium	3	33	36	92
Large	14	64	78	82

Source : Questions 5 & 8 of Participants' Questionnaires

Table 33 : DISTRIBUTION OF INTERVIEWS, BY BUSINESS LOCATION

Effectiveness	Number	%
Gaborone	25	78
Francistown	3	9
Maun	2	6
Palapaya	1	3
Serowe	1	3

Source : Interview Schedules

Table 34 : EXTENT TO WHICH TRAINING WAS REINFORCED BACK AT WORK, ACCORDING TO COURSE PARTICIPANTS

Number of Respondents	Training Reinforced	%
171	107	63

Source : Question 5 (a) of Participant's Questionnaire

Note :   The question number was inadvertently left off the final master of the questionnaire. The instruction, to those who reported they had not transferred knowledge into the workplace, to move from question 3 to question 6, meant that this question on reinforcement could have been omitted by 35 respondents (see Table 4). All but a few of the 35 completed the question on reinforcement; it has been assumed therefore that those who left it blank experienced no reinforcement. For ease of reporting results, the appropriate question in Appendices 3.1 and 3.2 has been numbered 5 (a).

Table 35 : FREQUENCY OF METHOD OF REINFORCEMENT, SHOWN AS A PERCENTAGE OF ALL RESPONDENTS WHO EXPERIENCED REINFORCEMENT

Method	Training Reinforced	%
Manager discussed course on return	66	62
Co-workers asked about course	59	56
Asked to brief others	51	48
Asked to suggest more efficient/effective methods	44	42
Supervisor asked for suggestions	40	38
Trainers followed up	16	15
In-company training reinforced	6	6
Other means	6	6

Source : Question 5 (a) of Participant's Questionnaire. Some indicated more than one method.

Table 36 :   DIFFERENCE IN TRANSFER OF KNOWLEDGE, SHOWN BY
             WHETHER REINFORCED OR NOT

Transfer Reinforcement	No transfer	Transfer	Total	% transfer
Yes	0	107	107	100
No	35	29	64	45
TOTALS	35	136	171	

Source : Question 3 & 5 (a) of Participant's Questionnaire

Table 37 :   DIFFERENCE   IN   INCREASED   EFFICIENCY,   SHOWN   BY
             WHETHER REINFORCED OR NOT

Efficient Reinforcement	No change	More efficient	Total	% more efficient
Yes	7	100	107	93
No	9	20	29	69
TOTALS	16	120	136	

Source : Question 4 & 5 (a) of Participant's Questionnaire

Table 38:   DIFFERENCE   IN   INCREASED   EFFECTIVENESS,   SHOWN   BY
            WHETHER REINFORCED OR NOT

Effective Reinforcement	No change	More effective	Total	% more effective
Yes	12	95	107	89
No	10	19	29	66
TOTALS	22	114	136	

Source : Question 5 & 5 (a) of Participant's Questionnaire

APPENDIX FIVE

EXAMPLES OF COURSE BROCHURES

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BOTSWANA CONFEDERATION OF COMMERCE INDUSTRY AND MANPOWER (BOCCIM)

COURSE ANNOUNCEMENT

PRODUCTION PLANNING AND CONTROL

ho: Small business owners and employees

hen: August 8-11 (3 full days) **Where:** Gaborone (President Hotel)

peating:

hen: August 15-18 (3 full days) **Where:** S/Phikwe (Bosele Hotel)

st: P450 BOCCIM Members, P600 Non-members

ntent:

> The just-in-time approach and how to introduce it.
> types of production and how to manage them.
> Designing and implementing an effective production planning and control system.
> Production programming, scheduling and loading techniques.
> The principles of effective inventory management.
> The financial implications of manufacturing.
> Quality management.

plication forms are available from any BOCCIM Office. Space is limited to the first twenty participants who pre-pay with their applications.
This special offer is made possible through the support of a USAID Training Grant. For further information call BOCCIM at 353459.

Reserve your place **NOW!**

BOTSWANA CONFEDERATION OF COMMERCE INDUSTRY AND MANPOWER (BOCCIM)

COURSE ANNOUNCEMENT

IMPROVE YOUR BUSINESS RESULTS

Who: Small business owners and employees

When: June 6-8(3 full days)   **Where:** Maun - (Rileys Hotel)

Repeating:

When: June 20-22(3 full days)   **Where:** S/Phikwe - (Bosele Hotel)

Cost: P450 BOCCIM Members, P500 Non-members

Content:

Getting the best from present and future customers.
Effective utilisation of staff and equipment.
Quality, Productivity and purchasing.
Planning and monitoring financial performance.
Obtaining funds from the right sources.

Application forms are available from any BOCCIM Office. Space is limited to the first twenty participants who pre-pay with their applications.
This special offer is made possible through the support of a USAID Training Grant. For further information call BOCCIM at 353459.

Reserve your place **NOW!**